REMARKS

Claims 1-18 are pending in this application. By this Amendment, the specification and claims 16 and 17 are amended. Claims 1 and 9-18 are amended to recite features supported in the specification at paragraph [**0073**]. Claims 16 and 17 are further amended to recite features supported in the specification at paragraph [**0074**]. No new matter is added by any of these amendments.

Applicant appreciates the courtesies extended to Applicant's representative by Examiners Sever and Adams during the June 17, 2003 interview. The points discussed during the interview are incorporated in the remarks below and constitute Applicant's record of the interview.

Reconsideration based on the following remarks is respectfully requested.

I. The Drawings Satisfy All Formal Requirements

Applicant gratefully acknowledges the Office Action acceptance of the corrected drawings filed with the January 2, 2003 Request for Approval of Drawing Corrections. Formal Drawings will be filed upon Notice of Allowance.

II. Claims 16, 17 Satisfy the Requirements under 35 U.S.C. §112, first paragraph

The Office Action rejects claims 16 and 17 under 35 U.S.C. §112, first paragraph, based on lack of enablement. Claims 16 and 17 are amended to obviate the rejection. Specifically, claims 16 and 17 are amended to recite features supported in the specification at paragraphs [**0030**], [**0074**] and [**0075**].

In particular, the term "visual compensating film" is disclosed in the specification as an antistatic element disposed on a light-transmitting substrate adjacent to the light source or the projection lens. Withdrawal of the rejection under 35 U.S.C. §112, first paragraph is respectfully requested.

III. Claims 1-18 Define Patentable Subject Matter

The Office Action rejects claims 1-3, 5-13 and 16-18 under 35 U.S.C. §103(a) over U.S. Patent 6,375,328 to Hashizume *et al.* (Hashizume) in view of U.S. Patent 6,340,404 to Oka *et al.* (Oka) and U.S. Patent 4,765,729 to Taniguchi. This rejection is respectfully traversed.

Applicant asserts that Hashizume, Oka and Taniguchi, alone or in combination, do not teach or suggest an electro-optical apparatus, including, *inter alia*, a pair of substrates, the pair of substrates having an outer surface, a holding frame housing the pair of substrates, the holding frame having an outer surface, an electro-optical element sandwiched between the pair of substrates, and an antistatic layer provided on the outer surface of the holding frame and at least one of the pair of substrates, the antistatic layer having conductive particulates, the conductive particulates include any of Pd, Pt, Ru, Ag, Au, Ti, In, Cu, Cr, Fe, Zn, Sn, Ta, W, Pb, HfB_2, ZrB_2, LaB_6, CeB_6, YB_4, GdB_4, TiC, ZrC, HfC, TaC, SiC, WC, TiN, ZrN, HfN, Si and Ge, as recited in claim 1. This applies by extension to claims 2-8 as depending from claim 1.

Further, Hashizume, Oka and Taniguchi, alone or in combination, fail to teach or suggest a projector, including, *inter alia*, an electro-optical apparatus according to claim 1 and a light transmitting substrate, at least one surface of the light transmitting substrate being provided with at least one of an antistatic layer and an antistatic treatment, the antistatic layer having conductive particulates, as recited in claim 11, and similarly recited in claims 13, 15 and 17.

Moreover, Hashizume, Oka and Taniguchi, alone or in combination, fail to teach or suggest a projector, including, *inter alia*, an electro-optical apparatus according to claim 1 and a field lens disposed adjacent to a light source side of the electro-optical apparatus, at

least one surface of the field lens being provided with at least one of an antistatic layer and an antistatic treatment, the antistatic layer having conductive particulates, as recited in claim 9.

Further, Hashizume, Oka and Taniguchi, alone or in combination, fail to teach or suggest a projector, including, *inter alia*, an electro-optical apparatus according to claim 1 and an incident polarizer disposed adjacent to a light source side of the electro-optical apparatus, at least one surface of the incident polarizer being provided with at least one of an antistatic layer and an antistatic treatment, the antistatic layer having conductive particulates, as recited in claim 10.

Additionally, Hashizume, Oka and Taniguchi, alone or in combination, fail to teach or suggest a projector, including, *inter alia*, an electro-optical apparatus according to claim 1 and an emergent polarizer disposed adjacent to a projection lens side of the electro-optical apparatus, at least one surface of the emergent polarizer being provided with at least one of an antistatic layer and an antistatic treatment, the antistatic layer having conductive particulates, as recited in claim 12.

Moreover, Hashizume, Oka and Taniguchi, alone or in combination, fail to teach or suggest a projector, including, *inter alia*, an electro-optical apparatus according to claim 1 and a visual compensating film, at least one surface of the visual compensating film being provided with at least one of an antistatic layer and an antistatic treatment, the antistatic layer having conductive particulates, as recited in claim 16.

Also, Hashizume, Oka and Taniguchi, alone or in combination, fail to teach or suggest a projector, including, *inter alia*, an electro-optical apparatus according to claim 1 and a prism that synthesizes color beams that have been modulated by the electro-optical apparatuses, the prism having a light incident end surface provided with at least one of an antistatic layer and an antistatic treatment, the antistatic layer having conductive particulates, as recited in claim 18.

Also, Hashizume, Oka and Taniguchi do not teach or suggest that the conductive particulates include any of Pd, Pt, Ru, Ag, Au, Ti, In, Cu, Cr, Fe, Zn, Sn, Ta, W, Pb, HfB_2, ZrB_2, LaB_6, CeB_6, YB_4, GdB_4, TiC, ZrC, HfC, TaC, SiC, WC, TiN, ZrN, HfN, Si and Ge, as also recited in claims 9-18.

Instead, Hashizume discloses optical modulation elements in a color separation optical system 924. The elements include liquid crystal modulating elements 925 R, G, B sandwiched between transparent plates 962 R, G, B and 963 R, G, B with the set disposed between polarizers 960 R, G, B and 961 R, G, B. See, *e.g.*, col. 9, lines 1-18 and Fig. 5 of Hashizume. These elements and plates are framed by anti-static dust-preventing members 965 R., G, .B. See, *e.g.*, col. 10, lines 34-46 and Fig. 6(B) of Hashizume. The dust-preventing members of Hashizume are mounted along the peripheral edges of the elements and plates, and thus are perpendicular to their light-transmitting surfaces. By contrast, Applicant's claimed features provide an entirely different solution for an incident surface with an antistatic layer or treatment with conductive particles.

Hashizume further teaches that the transparent plates 962 and 963 are coated with antireflection thin films. See, *e.g.*, col. 10, lines 57-59 of Hashizume. However, anti-reflection films perform an entirely different function from the antistatic layer or treatment provided in Applicant's claimed features. Antireflection coatings reduce specular reflection of light rays from a surface, while antistatic protection is intended to reduce dust adhesion to a surface caused by differences in electric charge.

Although the transparent plates in Hashizume are to be coated with a surfactant or treated with electrostatic protection, Hashizume fails to teach or suggest the antistatic layer having conductive particulates. See, *e.g.*, col. 9, lines 1-18, col. 10, lines 34-46, col. 11, lines 63 - col. 12, line 2 of Hashizume. Further, a surfactant is typically an organic cleanser, such

as soap. Thus, by disclosing a surfactant without conductive particles, Hashizume teaches away from Applicant's claimed features.

During the June 17 personal interview the Examiners reiterated the Office Action assertion that Hashizume discloses anti-static characteristics over the relevant elements as well as anti-static materials. In response to the Examiners' assertions, Applicant argues that Hashizume teaches that the anti-static properties are limited to members on the periphery of the elements and plates. See members 965 R, G, B in Figs. 6(A) and 6(B) of Hashizume. This contrasts with Applicant's claimed features for an anti-static layer or treatment on the light-transmitting surfaces. Further, Hashizume teaches that the dust-preventing member can be composed of resin containing glass fiber. See col. 13, lines 25-30. Thus, none of the conductive materials recited in Applicant's claims are taught or suggested by Hashizume.

In addition, Oka does not compensate for the deficiencies of Hashizume, but rather discloses an antiglare layer 12 having a fine uneven surface formed on a transparent substrate film 11, and a low refractive index layer 13 on the antiglare layer 12. See, *e.g.*, col. 22, lines 30-39, col. 24, lines 6-11 and Fig. 12A of Oka. While Oka also teaches addition of fine particles to the antiglare layer, the materials do not comprise any of the list of conductive particulates featured in Applicant's claims. Instead, Oka identifies various metal oxides, *e.g.*, ZnO, TiO_2, CeO_2 and the like, rather than the metals, borides, nitrides and carbides of Applicant's features. See, *e.g.*, col. 12, lines 16-34 of Oka. Also, Oka discloses that these oxide particles are included in a binder resin, rather than an inorganic material as recited in claim 2. See, *e.g.*, col. 11, line 33 - col. 12, line 15 of Oka. Thus, by providing an organic material containing oxide particles, Oka teaches away from Applicant's claimed features.

Taniguchi also does not compensate for the deficiencies of Hashizume and Oka, but rather discloses an optical article having an antireflection film formed on a substrate and an organic coating. Taniguchi also teaches the optical article having an antistatic effect by an

electroconductive layer that includes conductive metals such as Au, Ag and Al. See, *e.g.*, col. 6, lines 13-23 of Taniguchi. However, Taniguchi does not include such metals as Pd, Pt, Ru, Ti, In, Cu, Cr, Fe, Zn, Sn, Ta, W, Pb recited in Applicant's independent claims, not to mention the borides, nitrides and carbides also recited. See Abstract and col. 6, lines 13-23 of Taniguchi.

Further, there is no motivation to combine features related to optical modulation elements of Hashizume with the uneven antiglare layer of Oka or the antireflection film of Taniguchi, nor has the Office Action established sufficient motivation or a *prima facie* case of obviousness. Even assuming that motivation to combine the applied references is established, the combination fails to teach or suggest Applicant's claimed features.

The Office Action rejects claim 4 under 35 U.S.C. §103(a) over Hashizume, Oka and Taniguchi and further in view of U.S. Patent 6,423,404 to Ohtsuka *et al.* (Ohtsuka). This rejection is respectfully traversed.

Ohtsuka does not compensate for the deficiencies of Hashizume, Oka and Taniguchi. Further, Ohtsuka fails to teach or suggest that the antistatic layer having a resistance value ranging from 10^6 to 10^9 Ω/□, as recited in claim 4. Instead, Ohtsuka describes surface resistance of a transparent layer of a CRT ranging between 10^8 to 10^{10} Ω/□, which is largely beyond the range recited in Applicant's claims. See col. 2, lines 33-39 of Ohtsuka. Also, Ohtsuka compares results for carbon, titanium oxynitride and their combinations. See, *e.g.*, Table 5 of Ohtsuka. Neither of these materials are included for Applicant's features, and Ohtsuka teaches no materials for the conductive particulates recited in Applicant's claims.

Also, there is no motivation to combine features related to the layered structure for a CRT of Ohtsuka with the optical modulation elements of Hashizume, the uneven antiglare layer of Oka or the antireflection film of Taniguchi, nor has the Office Action established sufficient motivation or a *prima facie* case of obviousness. Even assuming that motivation to

combine the applied references is established, the combination fails to teach or suggest Applicant's claimed features.

The Office Action rejects claims 14 and 15 under 35 U.S.C. §103(a) over Hashizume, Oka and Taniguchi and further in view of U.S. Patent 6,379,010 to Suzuki *et al.* (Suzuki). This rejection is respectfully traversed.

Suzuki does not compensate for the deficiencies of Hashizume, Oka and Taniguchi. Further, Applicant asserts that Hashizume, Oka, Taniguchi and Suzuki, alone or in combination, fail to teach or suggest a projector, including, *inter alia*, a phase plate disposed adjacent to at least one of a light source side and a projection lens side of the electro-optical apparatus according to claim 1, at least one surface of the phase plate being provided with at least one of an antistatic layer and an antistatic treatment, the antistatic layer having conductive particulates, as recited in claim 14.

Instead, Suzuki describes a projection type display having liquid crystal light valves 21 R, G, B and polarizing plates 20 R, G, B with half-wave plates 20 Ri, Gi, Bi for polarizing conversion. See Abstract and col. 16, lines 43-48 of Suzuki. However, Suzuki fails to provide for a phase plate as recited in Applicant's claims.

Further, as explained above for claim 15, Hashizume, Oka and Taniguchi do not teach or suggest a light-transmitting substrate provided with an antistatic layer or antistatic treatment. Suzuki does not compensate for these deficiencies of the other applied references.

Also, there is no motivation to combine features related to the projection type display with half-wave plates of Suzuki with the optical modulation elements of Hashizume, the uneven antiglare layer of Oka or the antireflection film of Taniguchi, nor has the Office Action established sufficient motivation or a *prima facie* case of obviousness. Even assuming that motivation to combine the applied references is established, the combination fails to teach or suggest Applicant's claimed features.

For at least these reasons, Applicant respectfully asserts that the independent claim is now patentable over the applied references. The dependent claims are likewise patentable over the applied references for at least the reasons discussed as well as for the additional features they recite. Consequently, all the claims are in condition for allowance. Thus, Applicant respectfully requests that the rejections under 35 U.S.C. §103 be withdrawn.

IV. Conclusion

In view of the foregoing amendments and remarks, Applicant respectfully submits that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further is desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned representative at the telephone number listed below.

Respectfully submitted,

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Attachment:
Petition for Extension of Time

Date: June 20, 2003

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